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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/782,287	02/14/2001	Takashi Nomura	203253US6	8358
22850	7590	12/29/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			VOLPER, THOMAS E	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/782,287

Applicant(s)

NOMURA, TAKASHI

Examiner

Thomas Volper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 2 September 2004 have been fully considered but they are not persuasive.

2. Applicant argues, regarding claims 1, 3-7, and 9-11, that in Robinett there is no disclosure or suggestion of the adjustment of a time stamp based upon the detected state of non-coincident bus cycles. Amended claim 1 recites, "the second network having a non-coincident bus cycle with respect to the first network." There is no limitation regarding the adjustment of a time stamp based upon a detected state of the non-coincident bus cycle.

3. Applicant also argues, regarding claims 1, 3-7, 9-11, claim 2, and claim 8, that Robinett, either alone or in combination with Okura, does not disclose or suggest, "a memory status is detected so that control circuitry can transfer data to the second network in accordance with the detection result to avoid timing anomalies caused by non-coincident bus cycles." The independent claims 1, 10 and 11 do not recite any limitation about avoiding any timing anomalies caused by non-coincident bus cycles based on any detection. The claims only recite the existence of a non-coincident bus cycle in a second network with respect to the first. The Applicant has read additional limitations into the claims that do not exist.

4. In view of the above statements, Robinett and Okura meet all of the limitations of claims as previously presented for which they were applied. However, Robinett and Okura do not explicitly provide the newly added limitation, "the second network having a non-coincident bus

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cycle with respect to the first network.” Thus, a new rejection of the independent claims 1, 10, and 11 is made in view of Domon (US 6,813,282) as necessitated by the amendment.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3-7 and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinett et al. (US 2002/0131443) in view of Okura et al. (US 5,297,139) and Domon (US 6,813,282).

Regarding claims 1, 3, and 10-12, Robinett discloses a remultiplexer including storage means for storing data separately for each data flow which has been received from a first network and which is to be transferred to a second network (paragraph [0096]; see Figure 1), and control means for controlling the data transferred to the second network (paragraphs [0076] and [0092]; see Figure 2). Robinett fails to expressly disclose detection means for detecting the amount of data stored in the storage means, and transferring the data in accordance with the detection result. Robinett also fails to expressly disclose the second network has a non-coincident bus cycle with respect to the first network. Okura discloses a buffer that receives data from a communication line that only reads data from the buffer when the amount of data in the buffer is above a certain threshold (col. 2, lines 28-44; see Figure 5). This meets the limitation of a detection means and transferring data in accordance with a detection result. Domon discloses a

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bridge for connecting buses that compares elapsed cycle numbers between two buses and computes an appropriate delay amount to use in transferring a packet from one bus to the other (col. 11, lines 42-57; see also Figure 1). This meets the limitation of a second network having a non-coincident bus cycle with respect to a first network. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to detect the amount of data in the storage means of Robinett, and only read data from the storage means when the amount was above a certain threshold level. At the time the invention was made, it also would have been obvious to a person of ordinary skill in the art to have two networks with non-coincident bus cycles. One of ordinary skill in the art would have been motivated to compare a detected amount of data to a threshold to prevent data underflow in the remultiplexer of Robinett. One of ordinary skill in the art would have been motivated to transfer data between networks with non-coincident bus cycles by using the features of Domon's bridge because it is common in the art to have two networks with different master clocks that are not exactly synchronized.

Regarding claim 4, Robinett discloses replacing a null packet with a data packet to be outputted from the remultiplexer, which meets the limitation of discarding a dummy packet (paragraphs [0049] and [0050]).

Regarding claim 5, Robinett discloses inserting a null packet into the data stream to be outputted from the remultiplexer (paragraph [0050]).

Regarding claim 6, Robinett discloses gradually correcting a deviation of a time stamp included in the data over a predetermined period of time (paragraphs [0039] and [0040]).

Regarding claim 7, Robinett discloses that each transport packet containing a PCR is stamped with a receipt time stamp that is used to determine an actual dispatch time (paragraph

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[0137]). Robinett also discloses performing a final PCR correction as transport packets are outputted, so that the PCR in a transport packet is synchronized with the precise alignment of the transport packet in the outgoing stream (paragraph [0078]). Thus, the total period of time stamp correction extends from reception of a transport packet to the output of that transport packet. During this interval is when a null transport packet may be replaced with a data bearing transport packet (paragraph [0049]), thus meeting the definition of discarding dummy data at a substantially middle point of the period during which the time stamp is corrected.

Regarding claim 9, Robinett discloses remultiplexing MPEG transport streams, which contain audio and video data and include temporally continuous content (paragraph [0034]).

Regarding claims 13-16, as stated above with respect to claims 1,3, and 10-12, Domon discloses determining a temporal difference between a bus cycle of the first network and the bus cycle of the second network.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robinett et al. (US 2002/0131443) in view of Okura et al. (US 5,297,139) and Domon (US 6,813,282) as applied to claims 1, 3-7 and 9-16 above, and further in view of Baker (US 5,948,080).

Regarding claim 2, Robinett in view of Okura and Domon discloses using an ATM network (Robinett, paragraph [0045]), which is a wide area digital network, as the first network, but fails to expressly disclose that the second network is an IEEE-1394 serial bus. Baker discloses that the IEEE-1394 standard lends itself to video applications and is highly compatible with ATM (col. 1, lines 35-49). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use an IEEE-1394 serial bus as the second network in

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the system provided by Robinett in view of Okura and Domon. One of ordinary skill in the art would have been motivated to do this because IEEE-1394 is ideally suited for transporting real-time multimedia applications, such as MPEG, to the digital video device of an end user.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robinett et al. (US 2002/0131443) in view of Okura et al. (US 5,297,139) and Domon (US 6,813,282) as applied to claims 1, 3-7 and 9-16 above, and further in view of Saito et al. (US 6,523,696).

Regarding claim 8, Robinett in view of Okura and Domon fails to expressly disclose that the first network is connected to another first network which is not synchronous in terms of a network clock with the former first network. Saito disclose an AV device (205) that connects a public network (202) to an IEEE-1394 bus (203), representing the first and second networks, respectively, of the present invention. Saito also discloses that the public network (202) may also be connected to another IEEE-1394 bus (201), which represents another first network as in the present invention. Saito does not disclose that the IEEE-1394 bus (201) and the public network (202) are synchronized with respect to a network clock. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to connect the wide area network of Robinett in view of Okura to another first network, specifically the IEEE-1394 bus (201) of Saito. One of ordinary skill in the art would have been motivated to do this so that a digital video user connected to the second network of Robinett in view of Okura and Domon could receive a video stream from another digital video user on another network remotely connected to the first network of Robinett in view of Okura and Domon.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Fujimori et al. (US 6,243,395) Method and Apparatus for Transgerring ATM Cells via 1394-Serial Data Bus

- Hulyalkar (US 6,032,261) Bus Bridge with distribution of a Common Cycle Clock to all Bridge Portals to Provide Synchronization of Local Buses, and Method of Operation Thereof

- Baker (US 6,661,811) Method of and Apparatus for Communicating Isochronous Data

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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11. Any inquiry concerning this communication, or earlier communications from the examiner should be directed to Thomas Volper whose telephone number is (571) 272-3151. The examiner can normally be reached between 8:30am and 5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached at (571) 272-3155. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

Thomas E. Volper

TEV

December 17, 2004

A handwritten signature in black ink, appearing to read 'Huy Vu', with a long horizontal line extending to the right.

**HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**